Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SEVENTH GRADE.

NOTT WILLIAM FLINT.

OUTLINE FOR NOVEMBER AND DECEMBER.

Nature study.— For November and December the subject will be : How different kinds of animals pass the winter. To begin with, each child will write an account of how some animal he knows about prepares for and spends the winter. A class discussion of these papers will doubtless bring out the three heads of the subject—migration, hibernation, and the adaptation of skin coverings to withstand cold. Then, when the children find that the number of animals they know about is small, and their knowledge of the creatures' habits scanty, they will take up in field, library, and museum a study of the winter habits of beasts. Pictures will be painted of the various animals, stories will be written about them, and some of them will probably be modeled in clay. Then, when the study has gone as far as the teacher finds profitable, the class will organize the information and material it has gathered into a final paper.

In the following outline the topics are suggested in the questions.

MIGRATION.

Birds: What birds migrate from here? Where do they go to? How far do they migrate? Do they leave before the cold weather comes? Is cold the primary cause of bird migration? What is the condition of the favorite food supply of each kind when it leaves? Who are the first migrants? The last? What conditions admit of their winter presence? Do beasts, or insects of any kind, go away to spend the winter? Why not?

HIBERNATION.

What is hibernation? What animals pass the winter in this way? Why do they? Is it cold or lack of food that causes the seclusion?

Mammals (list of animals which sleep through all or a part of the winter). What ones seek a warm place stored with food, and what ones really hibernate? What is the character of the food? Of the storing place?

Batracheans and reptiles: In what kind of places do frogs, toads, lizards, and snakes spend the winter? Do these creatures eat during this season?

Insects: What becomes of the house-fly in cold weather? The butterfly? Of the beetles? The moths? Mosquitoes? (At this point a field trip will be taken to let the children seek in old stumps, under the bark of trees, under boards and stones, and among dead leaves and plants for the snug winter quarters of various insects.)

To be determined as accurately as possible: How warm are these various refuges in cold weather? Can frost reach them in winter? Does frost penetrate cocoons? Or the bottoms of shallow ponds? To what depth does the ground freeze?

Skin adaptations: Animals that move about during winter — what defense have they against cold? Differences in covering among animals of the temperate, arctic, and torrid zones? From what animals do we secure our finest furs, wools, and feathers? At what time of year in this climate is this material secured? (The study of temperature variations over the northwestern area of the United States will be necessary in connection with this study.)

REFERENCES: "Hibernating Animals," *Science*, May 2, 1884; "Hibernating Mammals," *Science*, Vol. III, p. 538; Weed, *Insects in Winter*, p. 132; Burroughs, *Squirrels and Other Furred Animals; Winter Sunshine*, p. 55; Thompson, *Wild Animals;* Ingersoll, *Wild Neighbors*, p. 267.

EIGHTH GRADE.

REVIEW FOR OCTOBER.

HISTORY AND GEOGRAPHY.

KATHARINE M. STILWELL.

THE work in history and geography in the eighth grade during October varied somewhat from the published plan. The change was due to the immaturity of the majority of the pupils, and to their lack of previous training in manual work.

The work consisted of a study of Chicago and its environs. Those members of the class who had traveled over it described the extent of the Chicago plain and its general appearance. Then the whole class examined the soil of this plain — sand, blue clay, and limestone — made inferences as to its origin, and verified these inferences by reading. They also considered the drainage, observing the work of rivers and of the lake.

The advantages of this site for the location of a city, as brought out through discussion, were (1) its position on the divide between the St. Lawrence and the Mississippi basins; (2) its position on Lake Michigan, which makes it a lake port and a railroad center; (3) the varied resources of the surrounding country that supplies the needs of the citizens. These include clay for brick-making, lumber and stone for building, food supplies, raw material for manufacturing, coal to furnish steam power for this manufacturing, and cheap transportation, which has made Chicago a distributing center. The Illinois and Michigan canal was considered as one of the great factors that have contributed to this result.

The children next considered the size, area, and the population of the city. They found the population to be about sixteen to the acre. They did this by staking out a square 208.7 feet on a side, turning the right angles by